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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/499,369	02/07/2000	Toshitsugu Wakabayashi	1190-0437P	1167

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Birch Stewart Kolasch & Birch LLP  
P O Box 747  
Falls Church, VA 22040-0747

EXAMINER

TRAN, TRANG U

ART UNIT PAPER NUMBER

2614

DATE MAILED: 09/08/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/499,369

Applicant(s)

WAKABAYASHI, TOSHITSUGU

Examiner

Trang U. Tran

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 20 October 2004.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-10,12-16 and 18 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 7-9 and 16 is/are allowed.
- 6) ☒ Claim(s) 1-6,10,12-15 and 18 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## **DETAILED ACTION**

### ***Continued Examination Under 37 CFR 1.114***

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on October 20, 2004 has been entered.

### ***Response to Arguments***

2. Applicant's arguments with respect to claims 1-6, 10, 12-15 and 18 have been considered but are moot in view of the new ground(s) of rejection.

Additional, in re page 3, applicant argues that Nishino Kanji fails to make up for the deficiencies of Murayama with respect to the claimed varying a frequency characteristic of the image signal in a periodic manner.

In response, as discussed in the last Office Action, Nishino Kanji discloses, in the abstract, the L1 and L2 shift three primary colors (red, green, and blue) electronic beams slightly leftward and rightward. Thus, the display position of the color image signal which is supplied to the color cathode-ray tube is slightly shifted leftward and rightward. The shifting of the display position of the color image signal does indeed vary the frequency characteristics of the image signal because the frequency of the image signal is shifted with respect to time.

***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1-6, 10, 12-15 and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Murayama et al. (US Patent No. 6,346,936) in view of Nishino Kenji (JP Patent No. 06-12195).

In considering claim 1, Murayama et al. discloses all the claimed subject matter, note 1) the claimed an image signal processing circuit receiving an image signal and processing the image signal for display as an image is met by the RGB signal processing circuit (Fig. 1, col. 1, lines 20-26), 2) the claimed an image display unit receiving the image signal processed by the image signal processing circuit, and displaying the processed image signal as an image on a screen is met by the LCD panel 30 of the LCD display (Fig. 1, col. 1, lines 31-37), and 3) the claimed a control circuit receiving said image signal from said image signal processing circuit and varying a characteristic of the image signal in a periodic manner is met by the RGB drivers 20R, 20G, 20B which represents a signal processing circuit having a function of perform processing such as clamp, gamma, amplitude, bias adjustment, etc. on the R, G, B signals respectively and periodic vary the phase of picture to the pixel according to the timing signal from the timing generator 4 and the timing generator 4 which generates

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the timing signal for the RGB drivers (Figs. 2 and 5, col. 1, lines 27-59, col. 5, line 36 to col. 6, line 12).

However, Murayama et al explicitly do not disclose the claimed varying a frequency characteristic of the image signal in a periodic manner.

Nishino Kenji teaches that the vertical synchronizing signal VS from an outside or a synchronizing separator circuit 1 is supplied to a set/reset circuit 9 constituting a moiré cancel circuit 8, the output of the circuit 9 and a horizontal synchronizing signal HS from the outside or the circuit 1 are supplied to an alternating voltage generating circuit 10, then, the circuit 10 generates an alternating voltage, and a horizontal and vertical alternating magnetic field is generated at coils L1 and L2, then, three horizontal in-line arranged original color electronic beams are horizontal vibrated a little, and the display position of a color video signal supplied to a color cathode ray tube is horizontal shifted a little by each line (see the abstract).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate the alternating voltage generating circuit as taught by Nishino Kenji into Murayama et al's system in order to reduce the moiré generated with the color cathode-ray tube which used the shadow mask and the aperture grille.

In considering claim 2, the claimed wherein the image is divided into spatial lines and temporal frames, and the control circuit alter said frequency characteristic once per spatial line in each temporal frame is met by the alternating voltage generating circuit 10, then, the circuit 10 generates an alternating voltage, and a horizontal and vertical

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alternating magnetic field is generated at coils L1 and L2 (see the abstract and page 2, [0020]-[0023] of Nishino Kenji).

In considering claim 3, the claimed wherein the control circuit also alters said frequency characteristic once per said temporal frame in each said spatial line is met by is met by the alternating voltage generating circuit 10, then, the circuit 10 generates an alternating voltage, and a horizontal and vertical alternating magnetic field is generated at coils L1 and L2 (see the abstract and page 2, [0020]-[0023] of Nishino Kenji).

In considering claim 4, the claimed wherein the control circuit comprises a timing circuit receiving a first synchronizing signal indicating said spatial lines and a second synchronizing indicating said temporal frames, and generating a timing signal by dividing a frequency of the first synchronizing signal, toggling the timing signal once per said spatial line and reversing a phase of the timing signal once per said temporal frame, said frequency characteristic being controlled according to the timing signal is met by the set/reset signal generating circuit which generates a set signal and a reset signal by turns for every perpendicular period synchronization with a vertical synchronizing signal, and making it reverse the phase of the police box signal generating circuit for every arrival of a vertical synchronizing signal (see the abstract and page 2, [0014] and [0020]-[0023] of Nishino Kenji).

In considering claim 5, the claimed wherein the control circuit has a variable inductance element, the image signal passes through said variable inductance element, and the control circuit varies the inductance value of said variable inductance element in a periodic manner, thereby varying said frequency characteristic of said image signal in

a periodic manner is met by the alternating voltage generating circuit 10, then, the circuit 10 generates an alternating voltage, and a horizontal and vertical alternating magnetic field is generated at coils L1 and L2 (see the abstract and page 2, [0020]-[0023] of Nishino Kenji).

In considering claim 6, the claimed wherein the variable inductance element comprises a coil having a primary winding and a secondary winding, the image signal passing through the primary winding, the control circuit alternately opening and closing the secondary winding is met by A coil L1 and L2 (Fig. 5, page 2, [0020]-[0023] of Nishino Kenji).

Claim 10 is rejected for the same reason as discussed in claim 1, and further disclose the claimed further comprising a control unit that determines a resolution of the image signal and activates the control circuit, depending on the resolution is met by the control input which is input from the external of the timing generator 4 (col. 5, lines 58-67 of Murayama et al).

Claims 12-14 are rejected for the same reason as discussed in claims 1-3, respectively.

Claim 15 is rejected for the same reason as discussed in claim 5.

Claim 18 is rejected for the same reason as discussed in claim 10.

### ***Allowable Subject Matter***

5. Claims 7-9 and 16 are allowable.

Claims 7-9 and 16 identify the uniquely distinct features "wherein said waveform characteristic is an amplitude characteristic, and the control circuit comprises: a first

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amplifier circuit amplifying the image signal with a first gain characteristic; a second amplifier circuit amplifying the image signal with a second gain characteristic differing from the first gain characteristic; and a timing circuit selecting the first amplifier circuit and the second amplifier circuit alternately". None of references of record, either singularly or in combination, fail to anticipate or render the above underlined limitations obvious.

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Trang U. Tran whose telephone number is (571) 272-7358. The examiner can normally be reached on 8:00 AM - 5:30 PM, Monday to Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John W. Miller can be reached on (571) 272-7353. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

TT TT  
September 1, 2005



Trang U. Tran  
Examiner  
Art Unit 2614